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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Donald K. Forest

Serial No.: NOT YET ASSIGNED

Filed: 24 July 1995

Title: DATA ENTRY METHOD
AND APPARATUS

Group Art Unit:

NOT YET ASSIGNED

Examiner:

NOT YET ASSIGNED

#2
L.N.M.
11-6-95

Honorable Commissioner of Patents and Trademarks

Washington, D.C. 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

Applicant submits this Statement in accordance with the duty of disclosure under 37 C.F.R. §1.56 and §1.97-1.98. This statement is filed in accordance with 37 C.F.R. §1.97(b)(1), within three months of the filing date of the application.

1. U.S. Patent No. 5,177,328 filed 27 June 1991, issued 5 January 1993 to Ito *et. al.*

This reference discloses an integrated display/input device comprising a screen superimposed on a transparent tablet device for detecting coordinates beyond the display range of the screen. In the present invention there is no transparent tablet device for detecting coordinates beyond the display range of the screen.

2. U.S. Patent No. 4,586,035 filed 29 February 1984, issued 29 April 1986 to Baker *et. al.*

This reference discloses a virtual menu not displayed in normal operations. In the present invention, the visible subregions of the selectable regions are visible in normal operations.

3. U.S. Patent No. 4,109,145 filed 20 May 1974, issued 22 August 1978 to Graf.

This reference's disclosed means for determining the direction in which the eye of the operator is looking consists of means for detecting the orientation of an eye or determining its line of sight, e.g. an oculometer. Oculometers are generally not useful for individuals with cerebral palsy and most other neurogenic muscular disorders because extraneous head movement common with these disorders precludes an accurate determination of line of sight.

4. Callahan, Jack; Hopkins, Don; Weiser, Mark; Schneiderman, Ben, "An Empirical Comparison of Pie vs. Linear Menus," Computer Science Technical Report Series CS-TR-1919, College Park, MD: University of Maryland, September 1987.

An pie menu is illustrated on page 5 of this reference. Pie menus are discussed at page 7 of the Specification of the present application. This reference does not disclose a perimeter menu.

5. "Darcy Too Product Description," WesTest Engineering Corp., Bountiful, UT: WesTest Engineering Corp., 1992.

Page 1 of this reference depicts the joystick pattern device discussed at page 7 of the Specification of the present application and depicted in Figure 7. The operation of the joystick pattern device is described under the heading "DARCI CODE" on page 3 of this reference. The joystick pattern device disclosed in this reference does not use selectable regions.

6. "Drawing Gallery," In *The Graphics Gallery Release 3.0 User Manual*, Hewlett-Packard Co., Boise, ID: Hewlett-Packard Co., 1988.

Page 2-6 of this reference depicts a Drawing Gallery menu. On page 2-7, under the heading "Choosing Menus and Menu Items," the process of selecting a menu item is described. The disclosed selection means of Drawing Gallery are responsive to the operator clicking a mouse button or pressing the Enter key. In the present invention, the selection means may be responsive to (a) an operator indicating a location intersecting an invisible subregion, (b) a cursor path toward a selectable region, or (c) a dwell event.

7. Goossens, Carol; Crain, Sharon Sapp, "Overview of Currently Used Eye-Gaze Communication Approaches," In Augmentative Communication Intervention Resources, 1986. Eye gaze systems are discussed on page 19 of the Specification of the present application and an eye gaze system is depicted in Figure 8. The eye gaze systems disclosed in this reference require

interpretation of operator eye gaze by another person. Thus, these systems are not suitable for unassisted computer access by a person with a disability.

8. *WiViK2, Visual Keyboard for Windows 3.1 User's Guide*, Prentke Romich Co., Wooster, OH: Prentke Romich Co., 1992.

Page 27 of this reference depicts an on-screen keyboard discussed at page 4 of the Specification of the present application and depicted in Figures 1 and 2. Page 68 of this reference depicts a quaternary expansion keyboard discussed at page 6 of the Specification of the present application and depicted in Figures 3, 4, 5, and 6. This reference does not disclose a perimeter menu.

A copy of each reference, together with a listing on Form PTO-1449, is submitted herewith. Applicant respectfully solicits the Examiner's consideration of the cited references and entry thereof into the record of this application.

The Commissioner is hereby authorized to charge any fees due under 37 C.F.R. §1.16 or §1.17 during the pendency of the present application to Deposit Account No. 06-1553.

Respectfully submitted,



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